
GUAM CONSUMER PRICE INDEX

Cost of Living Section

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Bureau of Statistics and Plans

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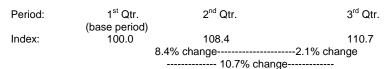
DEFINITION OF THE CONSUMER PRICE INDEX

The CONSUMER PRICE INDEX (CPI) is designed to measure changes in prices of commodities and services normally purchased by the consuming community, both families and single persons living alone. The Guam CPI (like the U.S. CPI) is based on the concept of a representative "market basket", a sample of all goods and services that consumers purchase. A total of approximately 282 items are divided into major groups and sub-groups, and indices are computed at different levels of aggregation. More than 1,628 price quotations are collected during the middle month of each quarter for compiling the Guam CPI and related sub-indices. The total number of business outlets included in the construction of the CPI is approximately 80, ranging from grocery and department stores to a variety of service establishments.

HOW TO INTERPRET INDEX CHANGES

A price change can be expressed as a percentage change between two periods. It can express as a difference in index points between a given period and a base period assigned an index of 100.0. Thus, an index of 110.7 for a given period means the price level has increased by 10.7% from the fixed based period. It does not mean a 10.7% change from the immediately preceding period as shown in Example 1:

Example 1:



Any period, such as the 2^{nd} Quarter in the next example, can be converted to a base period by dividing all indices individually by the periods' index, then multiplying the results by 100.

Example 2:

Period:	1 st Qtr.	2 nd Qtr.	3 rd Qtr.
	(base period)		
Index:	100.0	108.4	110.7
Period:		2 nd Qtr.	3 rd Qtr.
		(base period)	
Index:		100.0	102.1
		2% cha	ange

In example II, we dealt with a change in price index from a given quarter to the quarter immediately succeeding it – a 2.1% change from the second to the third quarter. However, many economic statistics, such as personal income, government revenues, and expenditure, are reported on an annual basis. The equivalent annual rate is used to determine what the index would be if a price change during a three-month period continues at the same rate for four quarters, a twelve-month period. The annual rate is often used to achieve uniformity in statistical expression.

Thus, a quarterly change of 1.0% is equivalent to an annual rate of 4.1%. If prices were to increase 1.0% each quarter for four quarters, the annual increase would be 4.1%. Derivation of this figure is shown in the Example III.

However, the equivalent annual rate <u>should not</u> be interpreted as a projection or price forecast. It is only a standard form for showing price changes that have occurred. The CPI only reports what has happened, while annual projections must be based on factors which determine future price changes.

GUAM CONSUMER PRICE INDEX

1. Number of commodity items:

GROUP	*GROUP WEIGHTS	NO. OF ITEMS ALLOCATED
Food & Beverages	25.23	133
Housing	36.97	48
Apparel & Upkeep	7.39	45
Transportation	13.68	14
Medical Care	4.19	13
Entertainment	6.36	13
Other Goods & Services	<u>6.18</u>	<u>14</u>
	100.0	281

^{*}Based on the 1996 Consumer Expenditure Survey (CES).

2. Base period: 3rd Quarter 1996 = 100

3. Formula:

The index is computed by using base-weighted arithmetic average of prices. The formula used is either in the weighted aggregated form,

$$I_{oi} = \frac{\sum piqo}{\sum poqo}$$

$$\sum poqo$$

or its equivalent, the weighted average of price relatives,

$$I_{oi} = \frac{\sum p_o q_o}{\left(p_1/p_o\right)} \times 100$$

$$\sum p_o q_o$$

where

 $\begin{array}{ll} p_l &= \text{ the price of the commodity in the reporting period.} \\ p_o &= \text{ the price of the commodity in the base period, and} \\ q_o &= \text{ the quantity of commodity sold in the base period.} \end{array}$

4. Weights:

Based on the 1996 Consumer Expenditure Survey (CES)

Guam Consumer Price Index (CPI) 3rd Quarter 2007 Volume No. XXXIII, 3

The Guam Consumer Price Index (CPI) of 144.46 for 3rd Quarter 2007 shows a decrease of 0.50 percent over the preceding quarter and an increase of 5.59 percent when compared to the same period one year earlier. Further comparison shows that a market basket of goods and services costing \$100.00 in October 1996 (base period), now cost \$144.46.

The 3rd Quarter 2007 index was based on 1,628 price observations of which 517 or 31.76 percent remained unchanged, 91 or 5.59 percent increased, 45 or 2.76 percent decreased, and 975 or 59.89 percent were not available.

The largest decrease over the preceding quarter was for the Apparel and Upkeep group. The Apparel and Upkeep group index of 86.60 shows an decrease of 4.98 percent over the preceding quarter and 9.39 percent when compared to the same period one year earlier. The Boys and Men Apparel sub-category shows a decrease of 7.34 percent over the preceding quarter and 11.39 percent when compared to the same period one year earlier.

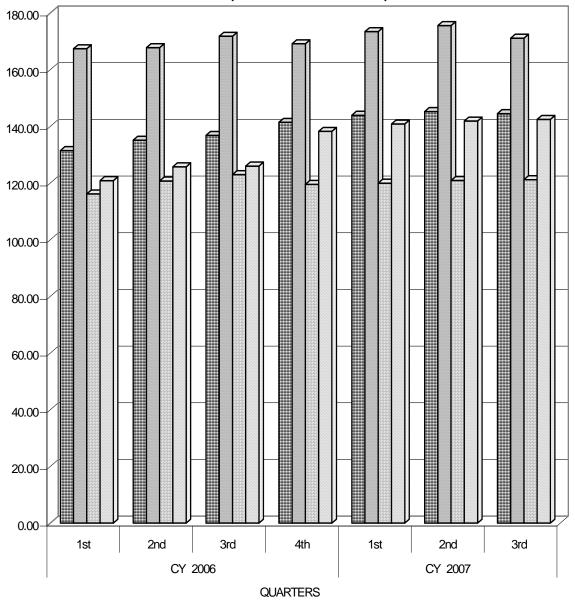
The Food & Beverages group index of 171.09 shows a decrease of 2.53 percent over the preceding quarter and 0.4 percent when compared to the same period one year earlier. The Fruits and Vegetables subcategory shows a decrease of 10.73 percent over the preceding quarter and 15.71 percent when compared to the same period one year earlier. The Meats, Poultry and Fish sub-category, however, shows an increase of 2.43 percent over the preceding quarter and 14.75 percent when compared to the same period one year earlier. The increase over the preceding quarter was due to price increases in all Meat, Poultry and Fish products, except for canned meats. The Beverage sub-category shows a decrease of 2.6 percent over the preceding quarter and an increase of 5.57 percent when compared to the same period one year earlier.

The Medical Care group index of 581.21 shows an increase of 0.28 percent over the preceding quarter and 39.56 percent when compared to the same period one year earlier. The Housing group index of 93.04 shows an increase of 0.11 percent over the preceding quarter and 4.47 percent when compared to the same period one year earlier.

The Entertainment, Transportation and Other Goods and Services groups show an increase over the previous quarter of 0.32, 0.42 and 5.04 percent, respectively.

CONSUMER PRICE INDEX (CPI) SELECTED INDICATORS

(3rd Quarter 1996 = 100.0)





R = Revised

TABLE A CONSUMER PRICE INDEX

(3rd Qtr. 96 = 100.00)

GROUP		CY 2006 QUARTERS			CY 2007 QUARTERS			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th
ALL ITEMS	131.43	135.09	136.79	141.40	143.90	145.19	144.46	
FOOD & BEVERAGES	167.36	167.74	171.77	169.13	173.38	175.53	171.09	
HOUSING	86.71	88.19	89.06	87.56	91.23	92.94	93.04	
APPAREL & UPKEEP	95.81	96.12	95.57	93.04	93.33	91.14	86.60	
TRANSPORTATION	135.00	153.87	150.81	144.23	144.28	146.56	147.18	
MEDICAL CARE	400.84	405.46	415.89	578.73	579.61	579.61	581.21	
ENTERTAINMENT	83.64	83.64	83.63	83.63	83.79	83.68	83.95	
OTHER GOODS & SERVICES	153.47	157.10	163.22	164.82	164.74	164.33	172.62	
SPECIAL GROUP								
ALL ITEMS less Food & Beverages	119.30	124.08	124.98	132.05	133.95	134.96	135.47	
COMMODITIES less Food & Beverages	116.13	120.71	122.96	119.50	119.93	120.89	121.17	
COMMODITIES	142.08	144.54	147.69	144.64	147.01	148.57	146.46	
SERVICES	120.85	125.71	125.97	138.19	140.82	141.84	142.43	
Purchase Power of Consumer								
Dollar (3rd Qtr. 1996 = 100.00)	.76	.74	.73	.71	.69	.69	.69	

ALL ITEMS: All items priced as shown on all tables for each category.

ALL ITEMS less FOOD & BEVERAGES: Same as above excluding the Food & Beverages category.

COMMODITIES: Commodities priced as shown on all tables for each

category excluding items such as:

Rent Financing, Taxes & Insurance

Fuel & Utilities Maintenance & Repairs

Services

COMMODITIES less Food & Beverages: Same as above excluding the Food & Beverages category.

SERVICES: Prices collected for service items only.

R = Revised

TABLE B

CONSUMER PRICE INDEX

(3rd Qtr. 1996 = 100.00)

		Index	Index	Index	% Chang	e to
GROUP	Relative Importance	for	for	for	3rd Qtr. 2	007
		3rd Qtr.	2nd Qtr.	3rd Qtr.	from	
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
ALL ITEMS	100.00	136.81	145.19	144.46	-0.50%	5.59%
FOOD & BEVERAGES	25.23	171.77	175.53	171.09	-2.53%	-0.40%
Food	24.20	172.82	176.22	171.77	-2.53%	-0.61%
Food at Home	20.32	183.70	187.00	181.55	-2.91%	-1.17%
Cereals & Bakery Products	2.69	108.12	113.39	111.41	-1.75%	3.04%
Cereals & Grain Products	1.37	95.82	103.79	101.19	-2.51%	5.60%
Bakery Products	1.32	120.81	123.30	121.97	-1.08%	0.96%
Meats, Poultry & Fish	6.55	144.34	161.70	165.63	2.43%	14.75%
Meats	4.01	150.94	155.14	158.68	2.28%	5.13%
Beef	1.38	176.32	187.07	190.92	2.06%	8.28%
Pork	0.91	162.39	165.06	178.72	8.28%	10.06%
Other Meats	0.23	116.49	114.45	114.84	0.34%	-1.42%
Canned Meats	1.49	125.63	125.65	123.18	-1.97%	-1.95%
Poultry	1.25	177.68	254.47	256.75	0.90%	44.50%
Fish	1.30	91.84	92.69	99.42	7.26%	8.25%
Dairy Products	2.49	128.07	128.59	129.49	0.70%	1.11%
Fruits & Vegetables	3.10	429.93	405.95	362.40	-10.73%	-15.71%
Fresh Fruits & Vegetables	2.78	462.71	434.23	385.58	-11.20%	-16.67%
Fresh Fruits	1.19	407.20	398.33	368.48	-7.49%	-9.51%
Fresh Vegetables	1.57	503.24	460.44	398.06	-13.55%	-20.90%
Processed Fruits & Vegetables	0.32	146.33	161.30	161.90	0.37%	10.64%
Processed Fruits	0.27	142.58	163.14	163.14	0.00%	14.42%
Processed Vegetables	0.05	164.46	152.44	155.91	2.28%	-5.20%
Other Food at Home	5.49	153.96	156.16	156.45	0.19%	1.62%
Sugar & Sweets	0.34	246.58	255.42	256.78	0.53%	4.14%
Fats & Oils	0.43	123.88	135.11	132.28	-2.09%	6.78%
Other Prepared Foods	4.72	150.15	151.06	151.55	0.32%	0.93%
Beverages	1.03	147.02	159.35	155.21	-2.60%	5.57%
Non-alcoholic Beverages	0.83	151.17	165.75	160.65	-3.08%	6.27%
Alcoholic Beverages	0.20	130.32	133.59	133.31	-0.21%	2.29%
Food Away from Home	3.88	112.14	116.08	117.21	0.97%	4.52%

TABLE B (continued)

		Index	Index	Index	% Change to	
GROUP	Relative Importance	for	for	for	3rd Qtr. 2007	
		3rd Qtr.	2nd Qtr.	3rd Qtr.	from	
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
HOUSING	36.97	89.06	92.94	93.04	0.11%	4.47%
Shelter	29.32	76.29	80.47	80.63	0.20%	5.69%
Rent	13.49	69.93	79.90	79.90	0.00%	14.26%
Home Ownership	15.83	81.70	80.96	81.26	0.37%	-0.54%
Home Purchase	1.12	147.04	161.19	164.33	1.95%	11.76%
Financing, Taxes & Insurance	13.77	74.57	72.59	72.61	0.03%	-2.63%
Maintenance & Repairs	0.94	108.20	107.73	108.77	0.97%	0.53%
Commodities	0.51	103.15	102.28	104.20	1.88%	1.02%
Services	0.43	114.19	114.19	114.19	0.00%	0.00%
Fuel & Utilities	4.21	166.45	173.35	173.82	0.27%	4.43%
Gas & Electricity	2.59	176.71	187.16	187.16	0.00%	5.91%
Other Utilities	1.62	150.00	151.20	152.42	0.81%	1.61%
Household Furnishing & Operations	3.44	104.73	102.28	101.39	-0.87%	-3.19%
House Furnishings	0.34	98.51	98.51	70.66	-28.27%	-28.27%
Furniture	0.70	77.39	77.39	77.30	-0.12%	-0.12%
Appliances	1.46	95.32	89.20	93.71	5.06%	-1.69%
Television & Sound Equipment	0.52	59.65	55.31	55.31	0.00%	-7.28%
Houshold Appliances	0.94	114.89	107.79	114.78	6.48%	-0.10%
Other Household Equipment	0.22	151.53	152.62	146.08	-4.29%	-3.60%
Housekeeping Supplies	0.50	137.27	138.01	138.98	0.70%	1.25%
Housekeeping Services	0.23	119.27	119.27	122.92	3.06%	3.06%

TABLE B (continued)

		Index	Index	Index	% Change to 3rd Qtr. 2007	
GROUP	Relative Importance	for	for	for		
		3rd Qtr.	2nd Qtr.	3rd Qtr.	from	
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
MEDICAL CARE	4.19	416.46	579.61	581.21	0.28%	39.56%
Medical Commodities	0.52	123.64	124.62	125.71	0.87%	1.67%
Prescription Drugs	0.32	127.63	127.63	127.63	0.00%	0.00%
Non-Prescription Drugs	0.20	117.30	119.83	122.67	2.37%	4.58%
Medical Care Services	3.67	458.29	644.60	646.29	0.26%	41.02%
Professional Services	2.53	184.29	184.78	187.22	1.32%	1.59%
Other Medical Care Services	1.14	1,064.20	1,661.42	1,661.42	0.00%	56.12%

		Index	Index	Index	% Chang	e to
GROUP	Relative Importance	for	for	for	3rd Qtr. 2	007
		3rd Qtr.	2nd Qtr.	3rd Qtr.	from	
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
ENTERTAINMENT	6.36	83.63	83.68	83.95	0.32%	0.38%
Entertainment Commodities	2.81	81.18	81.29	81.90	0.75%	0.89%
Reading Materials	0.25	115.78	115.78	123.14	6.36%	6.36%
Sporting Goods & Equipment	2.26	71.34	71.34	71.34	0.00%	0.00%
Hobbies & Other Entertainment	0.30	125.49	126.47	126.08	-0.31%	0.47%
Entertainment Services	3.55	85.57	85.57	85.57	0.00%	0.00%

TABLE B (continued)

		Index	Index	Index	% Change	; 10
GROUP	Relative Importance	for	for	for	3rd Qtr. 20	007
		3rd Qtr.	2nd Qtr.	3rd Qtr.	from	
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
PPAREL & UPKEEP	7.39	95.57	91.14	86.60	-4.98%	-9.39%
Men's & Boy's Apparel	2.33	102.01	97.55	90.39	-7.34%	-11.39%
Men's	1.60	113.87	102.01	102.01	0.00%	-10.42%
Boy's	0.73	76.21	87.87	65.13	-25.88%	-14.54%
Nomen's & Girl's Apparel	2.77	65.82	57.50	53.41	-7.11%	-18.85%
Women's	1.97	59.88	53.63	51.97	-3.10%	-13.21%
Girl's	0.80	80.53	67.06	56.96	-15.06%	-29.27%
nfant's & Toddler's	0.33	154.89	154.89	161.17	4.05%	4.05%
Footwear	1.42	105.68	106.14	106.70	0.53%	0.97%
Other Apparel	0.54	157.18	157.18	141.43	-10.02%	-10.02%
Commodities	0.52	158.70	158.70	142.46	-10.23%	-10.23%
Services	0.02	107.95	107.95	107.95	0.00%	0.00%

		Index	Index	Index	% Change	to
GROUP	Relative Importance	for	for	for	3rd Qtr. 20	07
		3rd Qtr.	2nd Qtr.	3rd Qtr.	from	
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
TRANSPORTATION	13.68	150.81	146.56	147.18	0.42%	-2.41%
Private	11.85	136.34	132.97	136.69	2.80%	0.26%
New Cars	3.25	98.66	99.29	99.29	0.00%	0.64%
Gasoline	3.20	222.75	210.74	221.15	4.94%	-0.72%
Auto Maintenance & Repair	1.20	105.68	105.68	105.68	0.00%	0.00%
Other Private Transportation	4.20	109.89	109.04	111.65	2.39%	1.60%
Commodities	0.29	113.32	125.82	138.11	9.77%	21.88%
Services	3.91	108.09	106.25	108.09	1.73%	0.00%
Public	1.83	244.36	234.33	214.93	-8.28%	-12.04%

TABLE B (continued)

		Index	Index	Index	% Chang	je to
GROUP	Relative Importance	for	for	for	3rd Qtr. 2007 from	
		3rd Qtr.	2nd Qtr.	3rd Qtr.		
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
OTHER GOODS & SERVICES	6.18	163.22	164.33	172.62	5.04%	5.76%
Tobacco Products	1.29	221.61	229.16	229.16	0.00%	3.41%
Personal Care	1.48	130.30	129.08	130.39	1.01%	0.07%
Toilet Goods	0.87	131.40	129.35	131.56	1.71%	0.12%
Personal Care Services	0.61	128.70	128.70	128.70	0.00%	0.00%
Personal & Education Expenses	3.41	155.39	155.07	169.54	9.33%	9.11%
School Supplies	0.12	111.23	102.91	109.61	6.51%	-1.46%
Personal & Educational Services	2.57	170.27	170.27	189.17	11.10%	11.10%
Other Personal Expenses	0.72	110.16	110.07	110.16	0.08%	0.00%

		Index	Index	Index	% Chang	e to
GROUP	Relative Importance	for	for	for	3rd Qtr. 2	2007
		3rd Qtr.	2nd Qtr.	3rd Qtr.	from	
		CY	CY	CY	Previous	One Year
		2006	2007	2007	Quarter	Earlier
SPECIAL GROUPS						
ALL ITEMS less Food & Beverages	74.77	125.02	134.96	135.47	0.38%	8.36%
COMMODITIES less Food & Beverages	24.57	122.96	120.89	121.17	0.23%	-1.46%
COMMODITIES	49.80	147.69	148.57	146.46	-1.42%	-0.83%
SERVICES	50.12	126.02	141.84	142.43	0.42%	13.02%
Purchasing Power of Consumer						
Dollar (3rd Qtr. 1996 = 100.00)		.73	.69	.69		

TABLE C

PERCENT DISTRIBUTION OF QUARTERLY PRICE COMPARISONS (DIFFUSION INDEX)

From 2nd Qtr. Calendar Year 2007 to 3rd Qtr. Calendar Year 2007

ITEMS		(PERCENT O	F QUOTATIONS)	
	NO CHANGE	INCREASE	DECREASE	NOT AVAILABLE
ALL ITEMS	31.76%	5.59%	2.76%	59.89%
ALL ITEMS less Food & Beverages	48.09%	11.01%	4.04%	36.86%
FOOD & BEVERAGES	25.61%	3.55%	2.28%	68.56%
COMMODITIES less Food & Beverages	43.85%	10.43%	4.55%	41.17%
COMMODITIES	29.99%	5.20%	2.83%	61.98%
SERVICES	70.42%	14.08%	1.41%	14.09%

TABLE D
*ANNUAL PERCENT CHANGES FOR THE SAME PERIOD BY MAJOR GROUP
(3rd Quarter 1996 = 100.00)

GROUP		CY 200	6		CY 2007			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Otr.	2nd Qtr.	3rd Qtr.	4th Qtr.
ALL ITEMS	12.04%	12.81%	13.35%	8.40%	9.49%	7.48%	5.61%	
FOOD & BEVERAGES	7.81%	5.40%	8.74%	4.27%	3.60%	4.64%	-0.40%	
HOUSING	6.62%	6.07%	4.46%	1.93%	5.21%	5.39%	4.47%	
Shelter	5.09%	5.03%	4.45%	1.35%	6.48%	6.82%	5.69%	
Rents, Residential	0.00%	0.00%	0.00%	0.00%	14.26%	14.26%	14.26%	
Gas & Electricity	23.53%	17.91%	6.45%	5.88%	5.88%	5.91%	5.91%	
APPAREL & UPKEEP	15.49%	5.04%	11.04%	-0.42%	-2.59%	-5.18%	-9.39%	
TRANSPORTATION	7.16%	20.95%	13.82%	2.06%	6.87%	-4.75%	-2.41%	
MEDICAL CARE	67.65%	69.82%	73.88%	45.03%	44.60%	42.95%	39.75%	
Medical Care Services	72.42%	74.48%	78.92%	46.79%	46.33%	44.60%	-81.66%	
ENTERTAINMENT	0.26%	0.18%	0.17%	0.23%	0.18%	0.05%	106.41%	
OTHER GOODS & SERVICES	1.07%	3.53%	6.37%	7.30%	7.34%	4.60%	-17.00%	
COMMODITIES	7.20%	6.41%	9.15%	4.26%	3.47%	2.79%	-0.83%	
SERVICES	18.25%	21.12%	18.68%	13.08%	16.52%	12.83%	13.07%	

TABLE E

CONSUMER PRICE INDEX (CPI) (3rd Quarter 1996 = 100.00)

INFLATION RATE

Calendar Year	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Average	Annual Percent Change	INFLATION RATE
1995				95.40			
1996	97.69	99.90	100.00	100.89	99.62		4.95%
1997	101.76	101.57	100.90	101.94	101.54	1.93%	0.71%
1998	102.14	100.71	100.55	100.24	100.91	-0.62%	-1.16%
1999	101.48	101.93	103.77	103.86	102.76	1.83%	3.72%
2000	105.37	105.65	104.25	103.97	104.81	1.99%	-0.37%
2001	104.49	104.19	102.38	102.29	103.34	-1.40%	-1.40%
2002	103.26	103.33	103.62	105.79	104.00	0.64%	2.10%
2003	104.07	107.03	107.54	108.74	106.85	2.74%	4.52%
2004	110.60	112.49	114.07	116.32	113.37	6.11%	6.51%
2005	117.31	119.75	120.68	130.44	122.05	7.65%	12.09%
2006	131.43	135.09	136.79	141.40	136.18	11.58%	8.95%
2007	143.90	145.19					

The 1st Quarter 2006 index increased 12.03 percent from the same quarter one year ago. Using the Inflation Rate formula, we calculated the inflation rate for 2005 to be 12.09 percent.

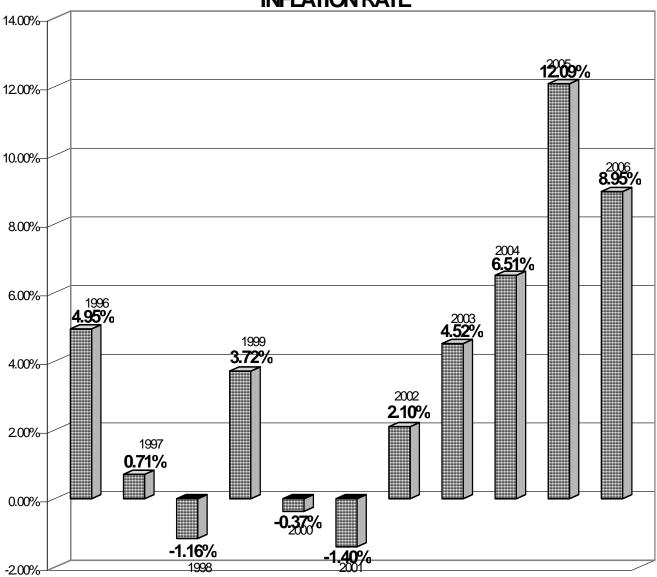
INFLATION RATE FORMULA:

((4th Qtr. 2006 + 1st Qtr. 2007) - (4th Qtr. 2005 + 1st Qtr. 2006)

x 100 = 8.95%

(4th Qtr. 2006 + 1st Qtr. 2007)

CONSUMER PRICE INDEX (CPI) (3rd Qtr. 1996 = 100.00) INFLATION RATE



R = Revised

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